

REMARKS

Applicants respectfully traverse and request reconsideration.

Applicants wish to thank the Examiner for the notice that claims 11 and 66 would be allowable if written in independent form. Claims 98 and 99 are allowable claims 11 and 66 written in independent form as the claims stood prior to the last amendment.

Claims 1-3, 5-6, 12-13, 34-35, 55-58, 60-62 and 67-68 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Molnar et al. Applicants respectfully submit that it appears that the teachings of Molnar have been misapprehended. Molnar in FIG. 6 (see cols. 7 and 8) makes a distinction between “reducing” a tile and “compacting” a tile that has already been fully “reduced”. This is shown in FIG. 6. Molnar describes an operation wherein only full compression or “fully reduced” tiles are provided. If a tile cannot be “fully reduced”, the tile is expanded meaning that all reduced fragments are put in their expanded form (see col. 7, lns. 40-46) since that “only fully reduced tiles can be compressed”. This is also shown in FIG. 6 which clearly shows that if a tile can be fully reduced, an attempt is made to further compact the tile but only if the tile has two samples per pixel. Tiles that have four samples per pixel are simply stored as a compressed tile as shown in FIG. 6. Tiles that cannot be fully reduced are actually expanded as shown in block 608 and then stored as an expanded tile. There is no partially compressed operation being performed.

Moreover, the cited portion in col. 9, lns. 48-58 actually refers to the “compacting” operation and again only refers to a single color value namely the “anchor” color from which all other color values are derived. It is also notable that this compacting operation being described is only performed when the tile has two samples per pixel (see col. 8, lns. 42-43). In addition, claim 1 includes partially compressing the tile using a single bit to represent each of the at least

two color designations for subsamples of the same pixel. This is described by way of example in paragraph 16 and elsewhere in the Specification. For example, a “1” may represent a replacement color of a sample and a “0” may represent an original color of a sample. (See also page 15). No such compression is taught in the cited portion of the reference.

Claims 1-6, 8-13, 89 and 91 stand rejected under 35 U.S.C. § 101 as allegedly not falling within one of the four statutory categories of invention. Applicants respectfully request reconsideration since the method claims at least transform underlying pixel data to compressed tiles (fully compressed or partially compressed, for example) and as such, claim subject matter consistent with the 35 U.S.C. § 101.

Claims 1-5, 8-10, 13, 34-35, 55, 89, 91 and 94 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Jouppi et al. Jouppi is directed to a system that represents each sample point in a pixel fragment that is visible as linked to the stored fragment value. A color of the pixel is computed from the stored fragment values to reduce the aliasing artifacts in the image. The office action cites to col. 5, lns. 15-20 as allegedly teaching compressing a tile if the tiles are deemed suitable for compression wherein compression recognizes duplicate data and reduces the amount of duplicate data stored in the tiles. However, the cited portion actually refers to storing only “visible” fragments for a given tile. The cited portion does not describe compressing tiles if the tiles are deemed suitable for compression where the compression recognizes duplicate data and reduces the amount of duplicate data stored within the tiles.

In addition, the claim requires designating a tile for partial compression where partial compression employs at least two color designations for subsamples of a same pixel to compress the tile. The office action cites col. 8, lns. 35-38 as allegedly teaching designating a tile for partial compression where partial compression comprises employing at least two color

designations for subsamples of a same pixel to compress data for the tile. However, Applicants respectfully submit that the cited portion does not teach this subject matter. Instead, the cited portion refers to a situation where relative memory savings is obtained not by compression, but by a “likelihood that there are fewer visible fragments in the pixel 300 than subpixel samples” (see col. 8, lns. 39-41). Jouppi does not teach compressing of tiles while performing partial compression of tiles using multiple color designations for subsamples but instead refers to noting that visible subpixel samples are stored and non-visible ones are not. Accordingly, Applicants respectfully submit that the Jouppi reference does not teach the claimed subject matter.

In addition, claim 1 includes partially compressing the tile using a single bit to represent each of the at least two color designations for subsamples of the same pixel. This is described by way of example in paragraph 16 and elsewhere in the Specification. For example, a “1” may represent a replacement color of a sample and a “0” may represent an original color of a sample. (See also page 15). No such compression is taught in the cited portion of the reference.

As to claim 89, Jouppi does not disclose a multi-level tile compression system that designates tiles, for example, as fully compressible, partially compressible or uncompressed. In addition Jouppi does not compress the color information but stores the color as part of the triple for each subsample. Claim 89 has been rejected for the same reasons given with respect to claim 4. Applicants respectfully submit however that Jouppi does not teach the claimed subject matter of claim 4. For example, as to claim 4, the cited portions do not describe determining whether the tile is wholly covered by a triangle primitive. Instead, the cited portions refers to merging fragments into a fragment list when they are from the same object or surface of the image. In fact, the cited portion says that fragments that produce the color of a pixel can have a different relationship to each other.

As to claim 91, Applicants note that this claim requires, inter alia, determinations of evaluating compression suitability for both full compression and partial compression. In addition, the claim requires designating a tile for partial compression. The office action cites the rejection of claim 8. However the cited portion of Jouppi, namely col. 4, lns. 1-10 does not determine that a tile is suitable for partial compression or determining that the tile is covered by no more than two triangle primitives. Instead, the cited portion merely states that elements from the same object or service are merged together because fragments may come from different objects or services of the image. There is no discussion of full or partial compression determination or designation nor determining whether a tile is covered by two or more triangle primitives as part of determining whether partial compression is to be designated. Accordingly, Applicants respectfully submit that the reference does not teach what is alleged.

Claims 6, 12, 55-61, 63-65, 67-68, 90 and 92 stand rejected under 35 U.S.C. §103(a) as allegedly being referenced obvious by Jouppi et al. in view of Molnar. Applicants respectfully reassert the relevant remarks made above and as such, these claims are also in condition for allowance. The claims are also in condition for allowance as depending upon allowable base claims.

Accordingly, Applicants respectfully submit that the claims are now in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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